SHIPMAN (A. B.)

A report of the facts and circumstances relating to a case of Compound fracture &c.

# A REPORT

OF THE

FACTS AND CIRCUMSTANCES RELATING

TO A

# Case of Compound Fracture, and Prosecution for Mal-Practice,

IN WHICH

WILLIAM SMITH WAS PLAINTIFF,

AND

DRS. GOODYEAR AND HYDE WERE DEFENDANTS,

**At Cortland Village, Cortland Co. N. Y.**

MARCH, 1841.

COMPRISING STATEMENTS OF THE CASE BY SEVERAL MEDICAL GENTLEMEN,

TOGETHER WITH NOTES AND COMMENTS ON THE TESTIMONY.

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BY A. B. SHIPMAN, M. D.

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CORTLANDVILLE:

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# PREFACE.

An exposition of the facts relative to the late trial between William Smith and Doctors Goodyear and Hyde is, I think, at this time imperiously demanded. It is a duty from which I would gladly be discharged did not justice to myself, to the profession, to the public, and to the sacred cause of truth, loudly call for its performance. The case has been extensively misrepresented. Rumors have been circulating in every direction touching my professional character, together with the other medical gentlemen who were associated with me in the treatment of the plaintiff after he came into our charge. It will be borne in mind that after the defendants were discharged from the care of the plaintiff, myself and others were chosen to attend him. We did so, and under our treatment he recovered. Our success and the final result of the affair, has called out upon us a torrent of vituperation from some with whom we had the fortune to differ in opinion. The 'miasma' of falsehood has been permitted to go out in every direction, and as yet no antidote has been offered. Soon after the trial a brief mention of it appeared in one of the political papers of our village: this was soon followed by another article in the same paper purporting to be a history of the trial, and abounding in grandiloquent and bombastic burs's of rhapsody, evidently proceeding from the brain of some conceited attorney. The article contained the most gross misstatements and misrepresentations, assailing my practice, and reflecting upon those who were connected with me. Another journal was solicited to publish the same, but refused it upon the ground that it was unfair and uncalled for.—Great pains were taken to circulate it—extracts were carefully selected and crowded into the journals of the neighboring counties. Were the writer of this article and his motives known generally to the public, no protection from his malign influence would be necessary. He probably had a threefold object in view—First, to gratify a little vanity and deliver himself of a speech which he had been at so much trouble to prepare for the occasion—Secondly, to laud his friends, and in some measure soothe their wounded feelings; and Thirdly, to indulge a personal animosity towards myself under the cowardly protection of an assumed cognomen. All this I suffered to pass unnoticed, and hoped for no further expose of the subject out of charity for the defendants, who I considered had already been sufficiently chastised. But folly and imprudence in circulating false and slanderous reports, render it important that the matter be laid more fully before the public. The subject is one of deep interest, not only to the surgeon and profession generally, but the community at large claim the right to understand what are the true principles and practice which should guide us in the treatment of those injuries which we so frequently encounter.

Reluctant as I may feel to censure any one publicly, yet if I should in the course of the following pages animadvert upon the doctrines and practice of any member of my profession, a profound regret will accompany the necessity of such a procedure. Paramount to personal feelings and private regret, a sense of duty impels me to come out in vindication of true and correct principles.—Delicacy towards the defendants will cause me to omit many details and circumstances connected with the case which being of a personal nature ought not to be unnecessarily obtruded upon the public.

*Cortlandville, October* 23, 1841.

## HISTORY OF WILLIAM SMITH'S CASE.

On the 4th of July 1839, Wm. Smith fell from a building in consequence of the staging giving way, and fractured his leg. I was called upon to visit him and arrived about two hours after the accident—found both bones broken, tibia two inches above the ankle joint; fibula 4 inches. The end of the tibia protruded through a laceration in the soft parts on the inside of the leg, 4 inches long, constituting what is called in surgery a compound fracture. None of the important blood vessels or nerves were injured. The fractured end of the tibia which protruded was transverse on the inside, and a small portion of its diameter on its outside or next the fibula, was detached and had fallen out. The extreme end of the bone was denuded of its periosteum, perhaps 1-4 of an inch. One small spicula of loose bone was removed from the wound with the fingers. No dirt or foreign bodies were in the wound, nor was there any considerable hemorrhage. After sponging the wound, extension and counter extension was made, and the bones placed in apposition. Narrow straps of adhesive plaster, bringing the wound accurately together, were applied—Scultetus' bandage, and two long splints well padded, reaching above the knee and below the ankle, with another short splint along the front of the leg—these were secured by strong tapes, and the leg extended upon a pillow with directions to keep it constantly wet with cold spirits and water. An anodyne of Sulphate of Morphine was administered, and I left him. The patient was about 50 years of age, of a strong and robust constitution, but addicted to intemperance.

The following day, July 5th, Mr. Edward Allen, Superintendant of the Poor, called on me to know my opinion as to the propriety of removing Smith to the Alms House, and requested me to visit him, which I did—found that he had rested tolerably well through the night, and was free from pain. As the Alms House was but a short distance, I advised his removal, and assisted in getting him up stairs into his room; examined the limb to ascertain if the dressings were deranged, placed it in an easy position upon a pillow, directed the nurse how to manage him as to diet, regimen, &c. and considered my services at an end, as I was not the attending Physician at the Alms House. I heard no more of the case until the 13th, when Mr. Allen called at my office about noon, and requested me to repair to the Alms House to amputate, or to assist in amputating Smith's leg.

Mr. Allen stated that he had been there that morning, and that Drs. Goodyear and Hyde had given it as their opinion that the leg must be amputated that day, and that he had accordingly summoned a number of Physicians for that purpose. On arriving at the Alms House, Drs. Goodyear and Hyde were there with some others, and we were soon joined by Drs. Lewis Riggs, G. W. Bradford, and Joel R. Carpenter—Wm. J. Wilson, Benton and Maybury, Medical students, were also present. Two of the Superintendents, Messrs. Coye and Allen, were there and present at the consultation. After examining the limb, the Medical gentlemen retired to a private room for consultation. Instead of proceeding to amputate the limb, as the nature of the summons had prepared us to expect, the question arose as to the propriety of amputating at all. The patient at this time was in the following condition:—His leg lay over the double inclined plane; the bone protruding through the wound nearly 2 inches: it was dry and dark, and had lost its vitality—the foot was turned off and the leg distorted, with retraction of the muscles and shortening of the limb—the leg was swollen and inflamed nearly to the knee; the wound gaped, but there was no loss of sub-

stance; upper part of the wound had healed, and healthy granulations covered a portion of the bone—some pus of good quality issued from beneath the bone—The patient suffered much pain, yet was free from fever; appetite, strength, and pulse good, tongue clean and bowels regular. Drs. Goodyear and Hyde urged the necessity of immediate amputation. The reasons they assigned, were, the age, habits, constitution of the patient, state of the weather, and apprehensions of fever. Dr. Bradford thought it a case in which the propriety of amputation might *be* "*talked of.*" Drs. Riggs, Carpenter, and myself saw no reasons why amputation was required: there were neither local or constitutional symptoms which demanded it. I explained to Drs. Goodyear and Hyde the situation and circumstances which ought to guide us in the consideration of amputation, in cases of Compound Fracture. That there were three periods of time at which this operation may be proper. The first is immediately after the receipt of the injury, before swelling, inflammation, or a disposition to gangrene has taken place; that if the soft parts are extensively contused and lacerated, the principal blood vessels and nerves destroyed, so much so that we have good reason to fear that there is not enough left to carry on the circulation of the blood; the bones broken and comminuted, or important joints involved in the mischief, then it becomes a matter of serious consideration whether the attempt to save the limb will not in all probability be followed by the death of the patient. That the second period is when, after a great length of time the bones refuse to unite; the sore instead of assuming a healthy granulating surface, take on a spongy unhealthy aspect, secreting a large quantity of thin sanious matter; the patient looses his appetite and strength; hectic fever with a weak quick irritable pulse—he becomes pale and emaciated, colliquitive sweats and diarrhœa reduces him to the lowest state of existence: then it becomes the duty of the surgeon to perform amputation, as the only means of saving his patient's life. The third period is one which does not require much deliberation: It is when a limb instead of suppurating and granulating kindly, manifests a gangrenous disposition, ending in complete mortification, involving the whole members, skin, muscles, cellular tissue and tendons quite down to the bone, and all circulation is totally cut off below the part injured. A patient in this situation must either loose his limb by the spontaneous efforts of nature, or by the hand of the surgeon.

It was formerly thought necessary in such cases that the progress of the mortification should be arrested, and a line of separation formed between the dead and living flesh, before such operation could be safely performed, but modern surgery has here made some distinction. There are certain cases of mortification, the direct result of external violence, in which the operation has been successful, though the mortification was in a spreading state. This kind of mortification has received the name of traumatic gangrene, and is often met with in military surgery. I also explained to them that the case under consideration did not fall within either of the above rules of surgery The first period had passed over, and I had decided that an attempt should be made to save the limb, and had reduced and dressed it accordingly—that the second period would not apply, as there was no hectic fever, diarrhœa, or night sweats which demanded a removal of the limb: on the contrary the patient retained his strength and appetite, and appeared in no danger of sinking from the local cause; and that the third rule would not apply at all, as gangrene had not, nor was there any probability that it would take place. I advised the removal of the dead portion of bone with the saw, which offered an obstacle to the reduction of the fracture, placing the bones in

apposition, and applying appropriate dressings; that it was important that the fractured ends of the fibula were placed in apposition, that it might unite, which would serve to keep the limb steady until union of the other bone had taken place—to give such constitutional remedies as the case required, and I was confident the leg might be saved without endangering the life of the patient. That amputation at this time was dangerous and cruel, that his chance of living was infinitely greater without amputation than with, that to save the limb it would require a great deal of time and patience, but that should not be taken into account where the life or limb was at hazard. The defendants did not relish this advice; they urged the necessity of immediate amputation for fear, as they expressed it, "*that a fever might set in and carry the patient off*"—*that the age, habits, and state of the weather* were other reasons why amputation should be performed. I knew of no authority in Surgery where age, habits, state of the weather and *apprehensions of fever* were sufficient reasons for removing a limb. Drs. Riggs and Carpenter coincided with me in opinion, advised the removal of the bone, and dressing with splints. Late in the afternoon I returned home. I saw no more of the case until the 23d of July, ten days after consultation. On Sunday the 22d, a messenger came to my house and informed me that the Superintendants of the Poor had given Smith liberty to choose his surgeon, and he had sent for me. Monday morning 23d, I met Dr. Carpenter at the Alms House. Found the patient in nearly the same condition as on the day of consultation—the limb rather more distorted; bone still protruding. The heel was very sore from pressure upon the inclined plane, and had sloughed to the bone. *The same kind of dressing, a loose cloth, was upon the limb.* He complained of much pain in his heel and leg, especially on motion or a jar of his bed. With the assistance of Dr. Carpenter, I proceeded to remove the end of the bone. A retractor was placed under it, and the lower end held by a pair of strong forceps, and the leg supported by an assistant—about an inch of the end was removed with the amputating saw, including that which had lost its vitality. After the removal of the bone, the limb was placed in an easy position and left. At the Alms House I learned that Dr. Patterson, of Homer, had been also requested to assist in taking charge of the patient, and we concluded to defer the application of splints until the next day. July 24th met Drs. Patterson and Carpenter—applied the proper dressings; cleaned the wound from pus and maggots; brought the edges as near together as possible with adhesive plaster; removed the double inclined plane; applied splints—dressed the heel; placed the limb upon a pillow in the straight position; ordered him Quinine, stimulants and anodynes. From this time Drs. Patterson, Carpenter, or myself, saw him daily and dressed the wound, keeping it clean and the bone in place. The wound kept on healing and contracting steadily and progressively, without any bad symptoms ensuing, until union took place, first in the fibula, which served to keep the leg steady without trouble the tibia next united, and the patient left his bed and went upon crutches. He remained in the Alms House during the winter, but left in the spring and engaged in labor. His leg has become strong, and he walks without difficulty and without much lameness.

The following letter from the Hon. Lewis Riggs, Member of Congress, will show the opinions which he entertained at the time, and his connexion with the case. Dr. Riggs has for many years stood preeminent in this county as a successful and skillful Practitioner of Surgery. His judgment and discrimination in cases of difficulty and doubt, has been proverbially correct and duly appreciated by his Medical brethren and community at large:

HOUSE OF REPRESENTATIVES, WASHINGTON, JULY 28, 1841.

*Dr. A. B. Shipman:*

DEAR SIR—I received your letter under date of the 20th, post marked the 22d inst. by due course of mail, requesting me to give a statement of the case of Wm. Smith, and my connection with it. If a statement of facts will be of any service to you, in order to place the subject fairly before the public, I ought not to withhold, but cheerfully comply with your request. In so doing, I shall be as brief as the nature of the case will prossibly admit.

On the 13th or 14th of July 1839, Messrs. Allen and Coye, superintendants of the poor, called and requested my attendance that afternoon at the Alms House, for the purpose of giving advice and rendering assistance in amputating a leg of Wm. Smith, one of the paupers. I accordingly repaired there and found Doctors Goodyear and Hyde, the then attending physicians of the poor, and several other gentlemen of the profession, yours If among the rest, had assembled. I was then informed that Wm. Smith, the patient, whose case was under consideration, fell from a building nine or ten days before that time, and fractured his leg just above the ankle; I found the patient in one of the upper rooms with his leg on what I considered an apology for a double inclined plane, without any splints or dressings, save a loose cloth flung over the wound, which was a compound fracture about two inches above the ankle. The laceration of the integuments was about four inches in length, and was open nearly or quite half as broad with the tibia or large bone of the leg protruding through the wound to the extent of an inch and a half or more. Nearly the whole of the visible portion of the bone was dry and black or dark brown, and was perfectly dead I have not the least doubt. The foot and leg were considerably swollen; some healthy granulations had formed in the upper portion of the wound. The foot was laying off at an angle of 10 or 12 degrees from a direct line or natural position, the toes turned out, which brought the inside of the foot to the front, or nearly so. The constitutional symptoms, considering the extent of the injury, were trifling. Under these circumstances I resolved in my own mind, without taking the opinion of others to oppose the operation of amputation. I never was, and I trust I never shall prove myself so recreant to my professional duty as to deprive a poor patient of a leg or an arm, or subject him to any other severe and cruel operation, to gain a reputation as an operative surgeon, or to rid myself of the trouble, care or expense of a protracted cure, however tedious or expensive it might be to myself. I hope I shall never be influenced by such sinister motives, or suffer it to be done by others when in my power to prevent it. After retiring with the medical gentlemen to an adjoining room, with a view to compare opinions, I expressed myself freely, and strenuously opposed amputation as a necessary means to save the life of the patient I was the first who gave an opinion. With Doct. Goodyear I had a lengthy argument, he insisting that immediate amputation was the only chance of saving the patient's life—thereby avoiding consecutive fever, which he insisted with much earnestness, would follow in the course of 24 hours, and then it would be too late to save the patient's life. I could

anticipate no such result—I saw nothing to lead to any such conclusion, but on the contrary had the fullest confidence, with a judicious course of treatment, the case would terminate favorably as it *has* done—The patient's life and leg saved and the cure so perfect as to answer a far better purpose than any thing that could be substituted by the art of man in the form of cork or wooden legs, crutches, &c. The contraction of the muscles of the leg was so great as to force the bone some distance through the wound, there having been no appropriate splints applied after the first three or four days from the time the fracture took place, as *I was informed*, to prevent such an occurrence. The foot and leg being inflamed and swollen to such an extent as to prevent sufficient extension being made with any degree of propriety, to place the protruding bones in their relative position, I considered the removal of a portion of the bone as necessary and proper, in as much as this dead bone presented a formidable resistance to the reduction of the fracture, and the placing of the limb in as natural a position as it otherwise might be done, and would act like other extraneous bodies in preventing a cure: I was therefore clearly of the opinion that the dead portion of the bone should be immediately removed, as it could be done without producing any irritation of consequence, or pain to the patient. I know of no good reason why the principle of removing a protruding portion of bone is not applicable when it offers a resistance to the reduction of the fracture even 10 or 20 days after it had taken place, if it should ever again occur (which I hope for the honor of the profession will not) as it would be at the earliest period after the accident had occurred, and I believe it is a practice of all good surgeons in this and all other countries—A dead portion of bone must certainly be removed before the cure can be perfected either by the slow process of exfoliation or by art, and what would require months for nature to perform, art can do in as many minutes and thereby hasten the cure.—Yourself and other medical gentlemen expressed opinions in accordance with mine,to which Doct. Goodyear took strong exceptions, and used indecorous language which I do not deem proper now to repeat. After the consultation was broken up, I saw no more of the patient under some 15 or 20 days; the bone at that time had been removed; a carved and other proper splints and bandages were applied to the leg, and appropriate dressings to the wound, and it appeared to be doing well.

I saw the leg a few days before leaving home; at that time there was a small ulcer about two inches above the inner ankle which I had but little doubt would ultimately heal. The patient walked with very little lameness.

Yours respectfully, LEWIS RIGGS.

Doct. A. B. SHIPMAN.

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We introduce a letter from Dr. Ashbel Patterson, of Homer, showing his views in relation to the case of Mr. Smith, and his connexion in the management and treatment of it. Dr. Patterson is one of our most talented, successful, and energetic practitioners of Medicine and Surgery, and has resided in Homer a number of years, enjoying the confidence and patronage of an extensive circle of friends. He was Physician to the Alms House for several years, performing his duty with strict fidelity and satisfaction.

HOMER, OCTOBER 7, 1841.

*Dr. A. B. Shipman:*

DEAR SIR—Yours of the 29th Sept., requesting of me a statement of my knowledge of, and connexion with the case of Wm. Smith, who was at the Poor-

House with a fractured leg in the summer of 1839, has been received. In complying with your request, I do not deem it necessary to go into a detailed answer to your several enquiries; but will give a general history of the case and of my connexion with it.

An urgent professional engagement prevented my attending the council that was held on this case on Saturday the 13th of July. On the ensuing Monday I saw the case for the first time with Dr. Hyde, and at his request. It was a compound fracture of the left leg; both bones were broken, and the tibia was driven through the integuments producing a wound of four or five inches in length, and from swelling of the parts and subsequent gaping, two or three inches in width. The limb lay on an inclined plane, (the dressings had been removed;) the foot had fallen over and rested on its outside; and lay about four or five inches to the left of a line with the leg; the fractured extremity of the upper fragment of the tibia projected through the integuments about an inch and a half; at least an inch of this end of the bone was blackened and dead; the external wound presented an extensive suppurating surface; granulations had commenced at the upper and lower extremities to such an extent that the lower fragment of the tibia (about an inch in length,) was entirely covered; there were no symptoms of constitutional derangement, except the debility consequent on the discharge from such an extensive suppurating surface.

I suggested to Dr. Hyde the propriety of removing so much of the bone as was obviously dead, as preferable in my opinion to waiting the slow process of exfoliation—of approximating the lips of the wound by adhesive straps; and of dressing the limb with a splint which should keep the foot on a line with the leg; with such constitutional treatment as the exigencies of the case called for, as in my opinion offering a reasonable probability of saving the limb of the patient. To this course Dr. Hyde objected on the ground that any effort to save the limb would be useless, and that the only chance of saving the patient's life was in an immediate amputation; although there were no constitutional symptoms then present calling for amputation, yet they would ultimately appear, and when they did it would be too late to amputate with safety. After a half hour's conversation to this effect, the Doctor proceeded to dress the limb—no splints were secured to the limb; the foot was raised up so as to rest on the heel and kept there by a piece of board placed between the limb and the pegs or posts in the inclined plane.

On the ensuing Saturday two of the Superintendants of the Poor, (Messrs. Allen and Coye) called at my office and requested me to accompany them to the Poor House and examine that leg, and give them my opinion as to the treatment that should be pursued with it, saying that there was extensive public dissatisfaction with the course pursued with it, and as I had been Physician to the establishment for three preceeding years, they wished my opinion on the case and would use their influence and authority to enforce such treatment as I should advise. I refused to comply with their request on the ground that medical etiquette, and a regard for the rights and feelings of Drs. Goodyear and Hyde, must prevent me from visiting a patient of theirs in their absence, inspecting their treatment, and expressing an opinion upon the case, especially as this opinion was to be made the basis of official action on the part of the authorities of the house. On the next day a message was left at my house, in my absence, informing me that Drs. Goodyear and Hyde had been dismissed from the care of the case, and requesting me to repair to the Poor House and take charge of it. On enquiring of the su-

perintendant (Mr. Coye.) whether this message was by their authority, I was informed that they had given Smith liberty to dismiss Drs. Goodyear and Hyde, if he was unwilling to submit to the course which they propos d to pursue, and send for such surgeons as he chose. On visiting the patient the next day, I learned that Smith, availing himself of the liberty given him by the Superintendants, had determined on having you, Dr. Carpenter, and myself, jointly take care of the case; that you and Dr. Carpenter had already been there and (in my opinion) very properly removed the dead portion of bone. During this visit at the Poor House I had an interview with Drs. Goodyear and Hyde. Dr. G. was highly exasperated at the course taken by the Superintendants, the patient, and by Dr. Carpenter and yourself—he reiterated the opinion in strong terms that nothing short of immediate amputation could save the patient's life; and if we pursued any other course, we pursued it at the peril of the patient: that notwithstanding the absence of constitutional symptoms making amputation necessary, that there would be fever, and that the limb should be amputated before the symptoms of this fever occurred, &c.

The next morning you, Dr. Carpenter, and myself met at the County House and removed the limb from the plane, in doing which we found *maggots* in the wound, and on the cloths placed between the limb and the plane—the bones were brought in apposition; the lips of the wound were brought near each other by adhesive straps, and a carved splint applied to the outside of the limb in such a manner as to prevent the foot from falling over at every dressing of the wound, as I was informed it did at each dressing previous to this.* In the spring the patient left the County House with the limb as perfectly cured as could have been anticipated from the nature of the case. During the progress of the cure no symptoms occurred which in my opinion called for, or would have justified an amputation. The limb is about an inch and a quarter shorter than the other, but nearly or quite as strong, and in point of utility far very far before a wooden leg.

Much has been said as to the propriety of removing the end of the upper fragment of the fractured bone. You ask my opinion as to the course finally pursued, viz. sawing it off. All who saw the limb concede that an inch of the fractured end of the bone was dead; blackened and dead—that it (being dead) could not unite with the fragment below—that ossific union could not take place nor commence until the dead portion was removed either by exfoliation or the saw—that the process of exfoliation would require many weeks, and probably months to accomplish the end—that as a general rule it is not only proper, but the duty of a surgeon to remove a dead part when "living parts are suffering by a contact with the dead." For these and other reasons which could be given, I am clearly of the opinion that the removal of the dead portion of the bone was not only proper but essential to the cure of the case under consideration.

Respectfully yours, &c.

A. Patterson.

A. B. Shipman, M. D.

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We give below the statement of Doct Joel R. Carpenter, an aged and respectable practitioner, who resides near the Alms House, at which he is at present

* See the testimony of Benton and Maybury.

employed as physician. He was intimately acquatnted with the case, as will be seen by his statement.

Homer, October 6, 1841.

Dear Sir—

I received your letter requesting me to give my statement and opinion of the case of Wm. Smith.

I first saw Mr. Smith at the County House on the 13th of July, 1839. I was notified that his leg was to be amputated on that day, and was requested to be present. Doctors Riggs, Bradford, Shipman, Goodyear and Hyde were there. Smith was lying upon a bed with his leg upon the double inclined plane, his foot was bent outward and turned over. The end of the fractured bone was protruding through the wound. The end of the bone appeared to be dead. The wound looked healthy—granulations were forming around it—there were no symptoms of mortification. Smith's general health seemed to be tolerably good, he had not much fever. After examining the case, some of us thought best not to amputate the leg, and we went into a room to consult. Smith was very unwilling to have his leg taken off. Drs. Goodyear and Hyde thought that amputation must be performed immediately or Smith would die. They said that the weather was warm, and the patient's age and constitution such that they thought fever would set in, and he would die. They thought that the socket of the bone in the ankle was dead, and that symptoms would set in by the next day which would place him beyound the hope of cure. Drs. Riggs, Shipman and myself, thought that amputation would be improper. We saw no reason why the leg might not be saved if properly treated. We made known our opinion, and recommended to saw off a piece of the end of the bone where it was dead, so as to reduce the fracture, dress in splints, and treat after the usual mode of treating componnd fractures. Dr. Riggs gave his opinion, strongly opposing amputation, and Dr. Shipman explained clearly to the council the causes and symptoms which demand amputation—it was apparent that none of the symptoms were present in the case. Drs. Goodyear and Hyde appeared to be very much displeased with the opinions and advice given. Goodyear seemed to be irritated, and used some hard language, particularly towards Drs. Riggs and Shipman. We did not come to any conclusion what course to pursue, and the council dispersed. On the 23d of July I was informed that Goodyear & Hyde were dismissed, and other surgeons chosen to attend the case. I was requested to be at the County House that morning. Went down, and met Dr. Shipman there. I assisted in taking off the point of the bone and reducing it. On the next day I assisted Drs. Shipman and Patterson in dressing the leg. After this I dressed or assisted in dressing it daily for two months. The leg began to improve immediately and continued without interruption. Smith worked for me nearly two months in the fall of 1840. He could then do a good day's work. He was not lame a great deal. There was a small sinus on his leg which discharged a little.

I have seen Smith and examined his leg within a few days. There is no ulcer or discharge of any kind. I think the cure permanent. The leg is, of course, a little shorter than the other, and the ankle joint perhaps not quite as free of motion, otherwise there is in my opinion no reason to apprehend further trouble with it, more than with the other leg.

Respectfully yours, Joel R. Carpenter.

To A. B. Shipman, M. D.

## TESTIMONY ON THE CASE.

Some time in the month of February 1841, I first learned that Smith had commenced a suit for mal-practice against Drs. Goodyear and Hyde. The trial came on at the Circuit Court, which was held in this village, March 1841.—The following testimony from notes taken at the trial by one of the counsel, is presented.

*Reuben Brockway sworn*—Resided in Cortland in 1839. Smith was at work for me—fell from a staging the 4th of July, 1839. The staging was about as high as my head. Saw that his leg was broke; the bone protruded through the flesh and his boot leg; some dirt on the end of the bone—bone protruded 3 inches—a little scale of bone which witness removed; took him to the house and removed the boot. Dr. Shipman was sent for: he came, and set the leg; bones were put in place—it was nicely done up; I made the splints to dress it with—Smith remained there until next day; saw him put into the sleigh; he drove off.

*Cross examined.*—The bone stuck out on the inside of the leg. The wound was about three inches long and spread open about an inch; he had on a stocking when it was broke; a short sock. It did not bleed much. The bone protruded about two inches from the ankle joint. The wound was cleaned nicely with a sponge; the wound drawn together with sticking plasters; bandages which lapped over each other were applied from the ankle to the knee; don't recollect any long bandage; there were splints on each side reaching above the knee and below the ankle, and one in front not so long; there was tow put in between the splints and leg, a cloth dipped in spirits was laid over the wound;—I did not see him again until the fore part of the next week; the leg was broke on Thursday; Friday, was taken to the County House. The leg was broke about 9 or 10 o'clock in the morning. I went up again on Tuesday or Wednesday after. *His leg was naked except a loose cloth thrown over it.* The end of the bone stuck out of the wound and looked dark. Thinks Rose went up with him; Thinks Baker was there. Seymour was about the house. I lifted the cloth up. saw the bone; he lay on the bed; the foot crooked off; it was not in a box.—The wound was open and the leg swelled considerably. The wound did not run; it was dry; the end of the bone was clean out of the wound; out of place. I was not there when the bandages were taken off; did not learn that he had been up; the latter part of the week went up again; went up on Friday or Saturday, 2 or 3 days after the first time. I don't recollect who I found there; Baker was usually in the room; he lay on the bed; *his leg lay open yet, was undressed; the bone was yet out; did not look as if it had been dressed at all;* don't recollect whether the cloth was over it or not this time; if there had been a cloth over it I should have hoisted it; the bone was a little blacker this time than the first; blacker toward the end. I guess the second time I went up it lay in a box, but not to confine it so but that it would roll; there was nothing to confine it;—might have staid an hour; I went up again after the bone was cut off.

*Reuben Brockway re-called.*—Saw defendants at Poor House after council had dispersed; they thought his leg ought to be taken off; they spoke like this, they said, *he would be glad to have it taken off before a great while.* I think they did nothing at this time but lay a piece of cloth over it; saw the stocking [which Smith had on when his leg was broke;] saw a slit in it but it was all there; his boot was as stout as good stout calf skin; it was an oldish boot; bone broke square off; have known plaintiff 28 years; is a drinking man; he told me a

piece of bone came out a year ago this spring; his leg did a great deal better after that.

*Joseph Rose sworn*,—Smith's leg was dressed at my house; I was present and assisted. The next day assisted in his removal to the Poor House, about noon; he drove the team himself; he set partly up so as to drive; he did not appear to be hurt much by the removal; he was taken up stairs into a bed room with a window next to the road; the leg appeared as straight after he was laid on the bed and as good as it was before he started; I saw him a short time; Dr. Shipman was there and examined the leg; he did not take off the splints; he did not take any thing off; there was bandages of cotton cloth or linen, or strips of cloth;—cant say how long the bandages were; there were splints on, 2 or 3, 2 certainly; there were bandages over the splints to fasten them on; should think the splints came above the knee; after the bandages were all on, could not see any part of the flesh.

*J. Rose re-called.*—I was at the Poor House about the time the council separated; went into the room where the parties were; I spoke like this, that Shipman said a point of bone ought to come off. Dr. Goodyear said, "*don't mention the villain's name*, I have been a father to him." He said the leg ought to come off. He said, "*he aint sick enough yet to have it taken off.*" They took a piece of cloth and laid over it; I saw it again before Shipman operated on it; he lay in the same state, *nothing but a cloth over it.*

*Azariah B. Shipman sworn*—Am a physician and surgeon; reside in Cortlandville; have lived there about 8 years; 4th of July 1839, was called to visit the plaintiff; found him at the house of Joseph Rose, his left leg broke; tibia, about 2 inches above ankle joint; both bones broken, tibia and fibula; it was a compound fracture, which is a fracture attended with laceration of the integuments and protrusion of bone; fibula or small bone was broken about 4 inches above the ankle; the inside of the tibia was broken transversely; a triangular portion of the tibia next the fibula was scaled off; hardly 1-4th of its diameter; I did not see the fragment, it was lost; fibula did not protrude, it was fractured transversely as near as I could judge; the upper fragment of the tibia was protruding, wound 3 inches or more in length. I first examined the limb to ascertain the nature of the injury, prepared splints, bandages, adhesive straps, compresses, and strings to tie on the splints; I then reduced the fracture; there was no difficulty in reducing it; the limb was a little shortened by retraction of the muscles, which was overcome by extension and counter extension; when the bone was reduced it would retain its length without extension; there were no foreign bodies in the wound, except one small fragment of bone, which I removed; I examined the wound back of the tibia, to ascertain the situation of the fibula, and determine whether any foreign substance was there; I first sponged the wound to clean it, then reduced the bones—sponged it again, brought the wound accurately together, and then applied adhesion straps; Scultetus' bandage or bandage of strips from 2 to 3 inches wide, and long enough to go around the leg and over lap; these were applied from the ankle to the knee and pinned; next applied splints, one upon each side of the limb reaching from above the knee to below the ankle joint, called them good splints; they were from 2 to 3 inches wide and excavated to fit the limb. They were bound with tow and cloth, a short splint was also applied on the shin, compresses were applied to fill the hollows: think there was a fold of cloth laid over the wound, strings or tapes were tied over the splints to keep them in place. My object was to heal

by the first intention, and reduce it to a simple fracture; expected the patient would recover: expected he would have a good limb. The bone protruded through the thin part of the flesh. There was not sufficient laceration to render it a serious case; none of the large blood vessels or nerves were wounded. I assisted in removing him to the Alms House the next day by the request of Mr. Allen, who was one of the Superintendants of the Poor—found the limb doing well, it sustained no injury by the removal—he complained but little. I considered myself dismissed, because I was not the attending physician to the Alms House. Smith asked me to visit him again and dress his limb. The Physicians to the Alms House were the defendants; understood that they were partners, and doing business in the same office. They took charge of him after I left him; saw him again on the 13th of July, at the request of Mr Allen, he lay in the same room and same bed; *the dressings were off from the limb; the tibia was protruding.* The leg lay on the double inclined plane, the foot was turned off and outward, the bone protruded an inch and a half, it was of a dirty dark brown color and dry—that portion which protruded. Dr Hyde was in the room when I inspected the leg: found the flesh wound at this time was inflamed, the edges dry; some pus issued from under the bone, there was no dressing on the wound, a cloth was thrown over it. A consultation was held in another room; I was notified to attend it and assist in amputating the limb by Mr. Allen. Besides defendants, D.s. Riggs, Bradford, Carpenter and myself, and a couple of Medical Students, Maybury, Whitney, and Benton, Benton was a Student or Physician, I do not know which. The defendants expressed their opinion that amputation was necessary at that time. The council differed in opinion. My opinion was that it did not require amputation that it was improper, that there were neither local or constitutional symptoms which required amputation. Circumstances which require immediate amputation after an injury are extensively contused and lacerated wounds, the bones broken into numerous fragments, involving important joints, the principal nerves and blood vessels destroyed; none such in this case; gangrene is another cause requiring amputation: no gangrene in this case. Hectic fever may be another cause which requires amputation, when the patients strength fails, he loses his appetite diarrhœa and night sweats come on, then we amputate to save the patients life. No hectic fever in this case, patients strength good. The defendants expressed themselves that amputation was necessary to save the patients life.

[Witnessed questioned by plaintiff's counsel, "Were the defendants on this occasion by you or any of the consulting physicians, advised what course of treatment to adopt?" Objected to by defendant's counsel; objection sustained by the Court—excepted to. "Did you give any advice what treatment to pursue?" Objected to, and objection sustained—excepted to.]

My opinion at this time was, that the limb should not be amputated, but an experiment made to save it—the bone which protruded and had lost its vitality should be removed; it had lost the power of union with the other bone; something like an inch of it was dead; granulations had formed on the bone down towards the end: down some distance and a portion of the flesh wound had begun to heal—the wound should be drawn together after the removal of the bone as near as possible with adhesive plaster, and proper dressings applied. I had some conversation with the defendants; they did not think this treatment would be right—I described to them this treatment; they opposed it; urged amputation

*for fear some symptoms might arise: they thought fever might set in and then it would be too late.*

[Question by plaintiff's counsel, "What advice did you give the defendants at that time as to the treatment of the limb?" Objected to by defendants: sustained by the Court—excepted to.]

I left the Alms House after giving my opinion that the limb did not require amputation; no operation was performed: this was on Saturday the 13th of July. A week from the next Monday I saw it again—on the 23d, 10 days afterwards, Mr. Rose came after me to assist in taking charge of the limb: Dr. Carpenter met me there—the bone was a little darker than at consultation; the limb still lay upon the double inclined plane; *no dressings but a dry cloth over it:* the flesh wound nearly in same state, a little less inflamed; the heel was sore and had sloughed; that was occasioned by pressure on the board: the foot lay against the foot piece on the double inclined plane so as to bear some weight against it. In sawing off the bone I acted on my own responsibility: I sawed off about an inch of the lower extremity of the upper fragment of the tibia, which was dead; placed the limb in as easy position as possible—learned that Drs. Riggs and Patterson had received notice to attend and assist in dressing the limb; deferred dressing until they should come. The next day Drs. Patterson and Carpenter. (I think Dr. Carpenter was there.) and myself, dressed the leg; brought the bones to their places as near as could be on a line with each other: applied bandages. We found the fibula still broken, and their parts not in apposition: we endeavored to bring them in apposition, but the ends of the fibula probably lapped some. It would have been difficult to have extended the limb so as to have placed their ends in apposition; the parts were inflamed—a carved splint was applied to the outside of the leg; it was hollowed so as to fit to the calf of the leg and the foot and ankle: saw the patient occasionally after this; saw him every two or three days; he seemed much relieved after the operation; Dr. Carpenter saw him daily—the flesh wound continued to contract and heal until it covered the bone; union of the bones took place; I think the tibia has united by osseous matter. The limb is some shorter than the other; the patient is able to walk upon his limb. I think it was bad to *let the limb lay undressed and open in the way it did;* think if the limb had been properly attended to after I first left it, it would have got well at that time. A compound fracture in general will unite slower than a simple one; the usual time of union is ten or twelve weeks; it might have been four, five, or six months before this patient got about. The limb is now shorter than the other, and will remain so through life; the limb appears straight; the foot in its relative situation—there are one or two small sinuses, still the osseous union is strong. The bone turned black and lost its vitality from being exposed to the atmospheric air; found maggots in the wound the same day or the next after taking charge of it: think the patient endured greater and longer pain in consequence of the treatment of defendants—*my impression was that the leg had not been dressed with any appropriate dressings.*

*Cross examined*—The patient should think was 50 years of age; should not say 60—had never known him before; suppose his habits are intemperate. The lower end of the tibia was square—is not positive, but think the bone where it was sawed off was the whole size of the bone; thinks it was sawed off above the piece split off, the lower end was not sharp—did not see the boot that was on when the leg was broken. As to the time when the dressing in compound fractures are to be removed, after the first dressing depends upon circumstances;

pain, heat of weather, usually within a week if the weather is hot; in this case, not prudent within a week. The object in not dressing sooner is to give it a chance to heal by the first intention—will not heal by the first intention after the 6th day, may not after the 4th, but the union becomes stronger; it is not usual for union by the first intention to take place after the dressings are removed. Fractured bones commence their union in from 7 to 10 days, it depends on the age, and other circumstances; it would not commence as early in this man as in a young subject—it would never commence healing while the bone protruded. In compound fractures no man can tell for a certainty how soon union would take place, it depends on the individual cases, upon the time the wound remains open; they sometimes ossify while the wound remains running; in this case it might have taken it six or eight weeks—if I had tended the case, should have expected ossification to have commenced in from 18 to 20 days. Previous to the commencement of ossification, it is important as to the position the limb is in—the more perfect the bones are set, and the more quiet they are kept, the sooner it will unite: after the first dressing, if the suppuration is profuse, it should be dressed daily, if not, once in 3 or 4 days—the wound should be kept clean, and dressed with as little disturbance as possible. The wound should be kept covered and the edges as near together as possible; splints should be continued and the many-tailed bandages. For constitutional treatment, if there is fever, moderate it; if pain, allay it with anodynes, opium, morphine, &c. &c. The exposure of the bone was the cause of its death; improper applications would have the same effect; caustic would do it; nitric acid would do it; exposure to the atmospheric air would do it; violent inflammation of the soft parts would not be apt to do it; violent inflammation of the bone might cause the death of it. Inflammation of bone may arise from an injury, or from constitutional causes: in common Necrosis, as a general rule, it is not best to remove dead bone until exfoliation has taken place. After I took charge of the case, I thought union commenced in about 6 weeks—do not think it proper to bleed intemperate subjects in cases of compound fracture; did not think it best in a case of this kind. The patient was considerably docile under my care. I think I said at the time of the consultation that a man would be a —— fool to propose amputation in this case: abusive language called out the expression; do not maintain a very good understanding with the defendants; have no intercourse with them. I have said that this was a case of mal-practice. In cutting off the bone, expected to get rid of the dead part, and cure the patient; nature would have done it if the man had lived long enough; understood there was exfoliation, and a piece of bone came out; the patient told me so; dont know when it was; it is common in compound fractures. The double inclined plane is proper in a fractured thigh; the leg should be dressed with splints and laid on a pillow or mattress or some such thing: this is according to Bell. I removed the bone by authority of most surgical writers who have written on that subject; I think Samuel Cooper is one.* After we reduced the bone, a small portion remained in sight until it filled with granulations; the wound was gaping some distance apart. I think the patient is in no danger of losing his life now from that cause; the leg is improving now: have seen it within 2 or 3 days. Osseous matter issues from all parts of a bone: it will not issue from a dead bone. It was essential that the dead portion of bone should be removed; it would have been difficult to reduce it without; did not think it ne-

* See note B.

cessary in the first instance. Understood there was a subscription paper got up last summer to carry on a suit—saw Smith have the paper. I refused to sign it.*

*Lewis Riggs sworn*—I have formerly practiced Medicine and Surgery in Homer; have discontinued practice—Mr. Allen called me to see Smith, to consult as to the propriety of amputating, to amputate, or to assist—met defendants there; Drs. Shipman, Carpenter, Bradford, and Benton, Wilson a medical student, and others. The defendants were decidedly in favor of amputation. The fracture 2 inches above the ankle joint; the bone protruding about 2 inches; it was dark brown about an inch of it; I thought not best to amputate; advised a portion of the bone to be removed so as to reduce the remainder and dress the leg. It was good practice to remove the bone; it would have been difficult to have reduced it, also to cover it, so as to allow the wound to heal: removing it would promote the healing process; it must exfoliate and come off if not removed—the fractured end was nearly transverse. I saw no symptoms which required amputation; saw nothing why in the first instance it was not properly reduced, or why it should not have remained so. The foot now stands about right, and where the bone was sawn off, has united by bony union—I saw it soon after Shipman operated; it seemed to be doing well; it was healing; that was an indication the system was in order.

*Cross examined*—The end of the bone was broken nearly square next the skin; a portion was split off next fibula obliquely upwards about an inch; in the position it lay could not be covered by the integuments; I thought it best to saw it off and get rid of a dead portion of bone; I have done this myself in the case of Miss Prior—never knew *a case left in the position this was.* I do not know that it was erroneous practice to saw the bone off in this case; I should think I had read of authority for it, but cannot mention the authority.† The periosteum was destroyed, but why could not say. It would not be a necessary consequence that the end of the bone would exfoliate from sawing off; never saw a case like this; have not advised this suit to be brought; it was according to good practice to remove the dead portion of bone.

*Dr. Ashbel Patterson, of Homer, sworn*—Have practiced Medicine and Surgery 17 years—was requested to attend the consultation by Mr. Coye, one of the Superintendants of the Poor; was called away; did not attend—called on Smith on Monday after the consultation. Hyde was there; he was examining the leg; it *was naked;* bone projecting—he wished me to examine it and give my opinion. He thought it necessary that it should be amputated; I told him he might save the limb; advised that the bone should be removed: dress the limb and put it in splints. Hyde thought the limb *could not be saved.* I saw no symptoms which require amputation. Heard Shipman describe the symptoms which require amputation;‡ I agree with him in that respect; assisted Shipman to dress the leg the last time he took charge of it: he did it well. In the first instance if the bones were properly set, they should have been kept so several days: it is the duty of the surgeon to keep the bones in place; if they get out, replace them. I should not *call it correct practice to allow the bones to lie as this did;* saw nothing difficult in reducing the fracture. I agree with Riggs that there was enough of the transverse part of the bone to keep it in place without extension; a portion of bone was sawed off; cannot tell just how much. The wound did well after

*See note A. †See note B. ‡See Shipman's testimony.

we dressed it, as well as we expected. His leg is some shorter than the other. The pain and suffering must have been increased by the course which was pursued with him; the process of cure was probably protracted—there was no healing by the first intention.

*Cross examined*—I did not see it but once previous to Shipman's taking charge of it the second time; I think Hyde on the 15th directed the nurse to put a poultice on it: that would have been well enough. I do not know that I could refer to any authority for cutting off the bone, but I should have done it; it was necessary for it to unite. I should think that none of the soft parts had sloughed off; the wound had gaped open; the integuments were mostly there; *never saw a bone under such circumstances.* The bone was out of line with the other bone an inch or more when I saw it with Hyde; there was talk of this; I told him I would take off that piece and bring it into line; the upper fragment did not extend so far below the lower fragment as to make it difficult to extend it so as to reduce the bones—it might have been done, but if it had been reduced would never healed.

*Dr. Joel R. Carpenter sworn*—Is a Physician and Surgeon; was at the consultation the 13th of July; saw Smith there for the first time. The defendants thought proper to amputate; I did not think so; saw no symptoms which indicated it at that time. I thought it proper that a portion of bone should be removed, and reduce the fracture; advised it should be done; should say it might have been well reduced in the first place—saw it again the week following, before Shipman dressed it again; it lay as has been mentioned: *a cloth was laid over it;* neither of the defendants were there. I was present when the bone was removed; after this was done, Shipman brought the foot back to its place and put a roller around it. After this was done the patient felt easier; I saw the patient after this dressing twice a day for 30 days; after this the healing process went on well. Goodyear was anxious to amputate that day; Bradford thought it not dangerous to leave it. I attended a long time, until he got about. The upper fragment would move some when I first began to dress it.

*Cross examined*—I called this a compound fracture—I have reduced some fractures; after the first dressing, they should not be removed until 5 or 6 days; then the wound should be dressed and the splints put on again; the 18 tailed bandage should be used. After Shipman amputated the bone, he put on a rolling bandage and splints; this was the next day after: I called that good practice; the wound run considerably. I studied Bell mostly. The patient did not appear to have a fever; constitution good. I concluded it was best to remove a portion of the bone; it would heal better: *I never heard of a bone being left in such a situation.* A compound fracture should be seen every other day at least: found maggots; I attended him until he got about; I think there was one piece of bone came out before he left the Poor House; did not know Smith particularly until there; he was intemperate. I took part of the roller off every day; there was a short one up to the wound, there was a cloth pinned around the leg on the inside; he had quite a sore on the heel by lying on the inclined plane; he complained of it a week after it was dressed; the leg rested on the inclined plane with a bolster under it.

*Edward Allen sworn*—Was one of the Superintendants of the Poor in 1839. The defendants were the Physicians employed; they had charge of Smith; they took charge of him soon after he came there: this was on Friday, and it was a fortnight from the next Monday when Shipman took charge of him. The next

Friday after consultation was there; *there were no dressings on it then; the bone was protruding then*; there was an old gentleman, old Mr .Baker, had care of him as a nurse. On the Friday spoken of, the *bones were not in their proper place*, when I saw it----I was there at the consultation: talked with defendants after.

*Lemuel Baker sworn*-----Was at the County House when Smith was brought there; had the care of him. The dressings were removed, the splints and all, and put into a little box with pegs in the side of the box, and splints into the side of that. When the splints were taken off, the bandages were bloody, and they [the defendants I suppose] attended every day and dressed it. I saw the bone sticking out; clotted blood was on the wound, and they [the defendants] put on a plaster and drew that off, and then the bone was plain to be seen; this was on on Monday; about the second dressing, the great bone could be seen; a plaster was on the leg, and clean cloths put on, not as a bandage; *continued to stick out* [i. e. the bone, I presume.] *every time it was dressed; I could right the foot, and then it would fall over again.* Hyde and Goodyear said, *socket of great bone was dead, and would not unite.* After the council they attended as usual titll *dismissed.* Defendants concluded it would not get well without *amputation*; dressed it as before; did not notice the foot the day the council met there; the foot was in same position each day; don't recollet any thing said about poulticing it; don't recollect putting a poultice on it.

*Cross examined*—They put clean linen cloths on the leg about 4 inches wide, and long enough to go clean up; it was laid into that box; did not put on splints at all after that, only as they put them in between the leg and posts, [pins I presume.] Smith was very restless; he paid no attention to order about keeping still; they ordered him to keep still as he could; he would not get up; he would roll his leg in his box over. I had care of him all the while; the Doctors gave him liberty to have a small quantity of spirits; he did not have but a small quantity; once I left some where he could not get it, and in the morning it was at all gone. Shipman continued the practice of giving a little liquor; there was a plaster put on every day; never knew him take off bandages until Shipman took him; the sore was sponged; the maggots continued to get on every day till after Shipman and Carpenter had charge of him. It was warm weather and the wound discharged largely every day; saw the bone because the flesh was off and it was bare; as nigh as I can recollect it was placed right in the box. When he was brought there and laid on the bed his foot turned; cant say how much; defendants saw him on Saturday; did not move the dressings. Dr. Shipman said it would not need dressing till the 3d day; the bone showed itself the same day; till the council, and after the council the bone looked dark; he was most uneasy for 3 or 4 first weeks: most uneasy while Goodyear and Hyde were doctoring him. He *remonstrated against amputation:* they told him he *must* have it amputated. Splints put in between posts and leg: no strings around the splints. The wooden boot was used soon after Dr Shipman dressed it.

[Here the plaintiff rested. The defendants introduced the following witnesses:]

*James Seymour Sworn*—Was keeper of the Poor House in 1839. My term closed the first of April. Was at home when Smith came; thinks Hyde called same evening or next day; don't know who made the inclined plane: it was in the shape of a box, and we altered it and put it in a different form. Defendants continued to call on him from day to day, while they had charge; sometimes I was in the room with them. I did not know them go away without

dressing the leg. If I recollect right they used to wash it. The first dressing on Sunday morning, they put it into the box with the side pieces on; put cloths around the leg; not positive that splints were used; they took off side pieces and put in posts, and then could put in splints or side pieces and take them away without moving the leg. Cloths or compresses were put in to keep the limb in place, tow was used about it somewhere. They attended from day to day about a fortnight. Smith was an untractable man. *When the compresses were taken off, the foot lopped over and the bone more protruded; when the compresses were on the bones lapped so as not to be straight.* On the day of consultation I heard nothing said about not dressing well. I think Shipman said there ought to have been a splint.

*Cross examined*—On the first Sunday morning they removed the dressings entirely, and placed it in a box. I saw the end of the bone *sticking out through the hole* shortly after the first dressing; it remained so till the council and so after, till Shipman dressed it. The end looked dark; don't know what kind of bandage was used. Not sure what was the manner of putting the leg in box; don't know as they used the splints, did not see them. Soon they put in the posts and slats each side, then they used a good many cloths about 2 inches wide. Heard nothing of amputation until the consultation; one of them [i. e. defendants, I presume,] gave it as his opinion that the bones could not grow together: the bones were dead and would not unite; they gave no other reason only a *fever might set* in. I should be inclined to think the bones was more in its place after Shipman removed the bone; the flesh sloughed away and left the bone naked. When I first saw it, it appeared to be covered with dead flesh and *the bones were out of sight, and in a few days it was uncovered and bones came in sight.*

*Franklin T. Maybury Sworn*—Is a Physician, now in Freetown. Was at the Poor House when Smith was there; saw him the 2d day after it was dressed: the next day after it was placed on the double inclined plane. Benton and Hyde were there; the limb was dressed while I was there; the bones were *displaced*; after dressings were removed *foot fell over: in dressing* it was left in proper position: brought in line with inferior fracture and left there: it was placed on the double inclined plane and dressed with the 18 tailed bandage; and a plaster over the wound; splints put on each side of leg, and space filled up with rags; he was directed to keep quiet. I was there several times, I dressed it twice—once certain: I dressed it by taking off one poultice and putting on another; *put the same bandage over the poultice;* put it in the box as before. Defendants said to Smith that he did not keep still as he ought; he was quiet enough when I and Defendants were there; they dressed in the same way I did; they were there more than once a day. I was there on the day of consultation; bandages were taken off to show the limb; I went up with them; did not see the limb before the dressings were taken off; did not see them removed: did not see it for a day or two before: then the lower portion protruded; but when dressed it was brought straight; there was no soft parts to cover it, they had sloughed off.* I heard no complaint on that day that the wound was not kept properly dressed, or kept in place. I thought it was proper to place the limb on the inclined plane. I thought the treatment was proper, I think so now;

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* The surgeons who testify upon this point, say there was no sloughing but merely gaping of the wound,—Witness probably mistook gaping for sloughing.

the end of the bone would have sloughed off if left there; that was the proper course to take with it.

*Cross examined*—I think it would have sloughed off as far as it was deprived of its covering,it was uncovered an inch and half; it would have sloughed off in 8, 10 or 12 weeks: cant say how long. The wound would not have healed until the bone had sloughed off: better to let it slough off; because if sawed off cant say just how long, will slough off; the defendants approved the inclined plane. The first time I saw it dressed, the *foot fell over*, and after bandages were removed *foot fell over* as much as 10 degress; it *continued to fall over each time it was dressed;* thinks *the foot would fall over if the dressings were taken off, and both fractured ends out of place.* When they put the dressings on and brought it into place, there was an extension of the leg and got the two bones together: was there on Tuesday and left it so: think I was there next day, *foot fell over again; bones out of place. No* extension then; *the foot always fell over.* The wound was about an inch wide: that is not a great distance for a wound of that size. The bone became brown and remained so about the time of the consultation, they [the defendants, I presume] said there was danger that the parts would become *gangrenous—and of fever*—and because the bone was dead; there were granulations about an inch at the upper end; he had not a fever: and they were *apprehensive of gangrene.* Carpenter proposed to take off the end of the bone, Shipman and Riggs approved, Bradford said it might be considered of.

*John B. Benton Sworn*—Is a Physician, lives in Spencer, Tioga County. Was at defendants office in practice, had studied with them. I went to see Smith with Hyde on Saturday, the first after Independence; the first visit of Hyde. He lay on the bed, foot turned over a little, toes outward—it rested on the bed. Nothing done at that time to regulate the limb, and bring the foot up; he was told to keep it in that position. Saw it on Monday after: then it was placed on inclined plane, with a cushion under it, and splints were placed between it and the pegs; a dry cloth and many tailed bandage, and a cushion each side of the foot. Saw the bones on that day, and the bones were in apposition; he was directed to keep the limb still. After this on Thursday saw it again; Hyde dressed it: the foot was as it was when I last saw it: the bandages being taken off it *fell away.* It was left straight as before, and on the day of consultation I was there before the bandages were taken off; should think the bones were in their proper place: the flesh had sloughed some. When I first saw the wound on Monday, the bone was exposed an inch, at time of consultation 2 inches; there was no difficulty in reducing the fracture. I left when defendants did; never knew them leave without dressing the limb.

*George W. Bradford Sworn*—Physician and Surgeon, living in Homer—was at the Alms House at the consultation, Coye notified me. I arrived there about 2 o'clock, P. M. Hyde was there, Goodyear was there or arrived soon after; saw and examined the limb, the wound was undressed, foot and limb swelled nearly to the knee; the wound was 3 inches in length and 2 inches wide, had the appearance of sloughing; bone was protruding: dark colored: the discharges dark and unhealthy; the bones not in *apposition, foot fallen off,* to *one side;* the bone was discolored an inch and a half; it was naked 2 inches, gaping of the wound in part from sloughing: do not conceive there was any difficulty in bringing the bones in apposition: did not see it done; I heard the practice described by Maybury and Benton; know of nothing improper in it.

I thought at time of consultation, not best to amputate; I should not have sawed off the bone: it must add to the irritation; I could not tell how much must come off; the dead bone would be thrown off, and then it would heal: if sawn off the same causes would remain as before. I should reduce the fracture as much as could be—the falling over hinders the healing process.

*Cross examined*—It would take this dead bone ordinally from 2 to 4 months to be thrown off: there would be no prospect of its healing until it had exfoliated and came away; there is no authority for sawing it off. It might be proper to saw it off when the line of demarkation had formed; when that is formed the dead portion may be removed, but is best to let it drop off and then remove it; it is not good practice to allow bones to *slip out of place* if it can be avoided, before the healing commences it is not so important as after. If the bone gets out of place, it should be reduced and kept so: never knew one but what it could be kept right: the process of healing does not take place until the inflammation subsides; the end of the bone was in plain sight, but might have been put in place by extension. I should have subdued inflammation, put bones in place and kept them there; the dead part of the bone would not heal: but would be better in its proper place; it would heal sooner. I should not have thought it necessary then; good Surgery would have required that the bones be put in appositon. Hyde said it should be amputated because of age—habits of patient—and hot weather. I did not deem them sufficient. If I had reduced a limb I would have some means of keeping it in its place: put it in a box with bran or saw dust; the mode Shipman mentioned is a good one; must be kept in place; it is not good practice for a bone to remain out of place after 20 days.

*James Webster sworn*—Is a Physician and Surgeon, resides in Rochester; has been Professor of Surgery in Geneva College, is Professor of Anatomy now. Have been in practice 18 years. I heard the first testimony—not the last, I was out. This was a case of compound *comminuted* fracture;* it is where the bones are broken in many fragments: in such cases we are to remove the detached portions apply light dressings, adjust the fragments—convert it into a simple fracture, put the limb into a position for the ease and comfort of the patient. The question of amputation arises first in compound fractures: we are to take into consideration the age, habits, &c. &c., of the patient, and prospect of cure—that question decided we act accordingly. I treat the fracture with double inclined plane: may use the lateral splints or Scultetus' bandage—there are a number of ways of treating fractures. I have heard the two modes mentioned here—each have their advocates. The first dressings may be done on the 3d or 4th day in July, the object in letting it lie without dressing is to unite by first

* This witness makes a discovery which had been overlooked by all the Medical gentlemen who saw the case or preceded him in the testimony. The mere detachment of one or two small fragments of bone in case of fracture in our opinion does not merit the distinction of Comminuted. What is understood by a compound comminuted fracture is where the bone is crushed or broken into many fragmeats. This accident is generally the result of a heavy body falling on the limb, or the passage of a carriage wheel over it, or its being ground to pieces in machinery or any other cause which grinds or crushes the bones into many pieces with a wound or wounds more or less extensive in the soft parts. This is what is technically styled a compound comminuted fracture, as the witness may learn, by referring to Samuel Coopers First Lines of Surgery. A fracture may be comminuted and not compound, a limb may be crushed and comminuted to such a degree as to render amputation inevitable and yet the external soft parts remain unbroken.

intention: the wound is to be kept clean, light dressings: foot to be kept in position so as not to get out of place, the wound should be drawn together and converted into a simple fracture—dressing once a day is often enough: maggots not uncommon in warm weather. I heard part of Maybury's testimony: I use the inclined plane, I use the pillows, not as they did; in Surgery we are to avoid irritation in the removal of bone: care in removing detached bone so as not to produce irritation—in this case the amount of irritation would have prevented me from any effort to this effect*---I should have adjusted the bones and reduce irritation, and watch the period when nature was incompetent to do her duty, then I might be disposed to remove the bone: this is presuming a condition which does not ordinarily exist---cause of the death of bone may be the character of the injury and loss of investing membrane---in all such cases the chance is against the individual for a cure. It is of no importance that the foot fell over because the bones could not unite in such a case; but for the comfort of the patient would keep the bones in place. I do not know of any thing wrong in this case: cutting off a portion of bone causes irritation and a portion will remain till death; the bones coming from it and the sinuses are an evidence that there are dead parts of bone left which must come away. Taking every thing into consideration I should have decided upon amputation.

*Cross examination of James Webster*—There was nothing objectionable in the mode of dressing by Shipman; it is not good practice to allow a fracture to get out of place; do not ordinarily amputate in compound fractures: in old persons one in ten perhaps. I have amputated but two cases in all: have had 6 or 8 cases of compound fracture in all; limb always retracts when both bones are broken; it indicates want of Skill to allow of displacement of the bone. I understood from one witness that the bone went through a boot leg: must have denuded it of its periosteum, just the end would receive the shock; I do not say in this case it was denuded.

*Frank H. Hamilton Sworn*—Physician and Surgeon, is Professor of Surgery in Geneva Medical College---have not been in Court all the time. I examined the leg about 2 hours since: the leg is an inch and a quarter shorter than the other and 2 inches larger in circumference; there is a sinus which discharges, the bone is about 1-6 of an inch from the surface, and the probe enters the bone about an inch; the man stands an *equal chance* of losing his limb: there was a question as to amputation: it was properly a matter of consideration: the probable cause of the death of the bone was the injury the periosteum received: the mere inflammation of the periosteum will cause it to die. As to the cutting off the bone, there was but one circumstance under which it was proper, and that is where we suppose or presume that the living parts are dying by lying in contact with the dead; the rule is the same as to amputation: if the death was extending to parts not injured then amputate; I should have treated lightly at that time of year by laying the limb in saw dust, and not allow the limb to be displaced, it would not have been material for 10 or 15 days: the double inclined plane with pegs and splints within used. As to moving the foot if I understand the testimony it did not matter a straw; the saw dust mode is the mode of dressings in this day; tight dressings would have been highly pernicious after 3 or 4 days; no authority for it only to keep it quiet. This fracture might presumptuously be attended with sloughing.

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* See note B.

*Cross examined*—If the fibula was broken as in this case, it is of importance to keep that in place; if the splints came above the knee and below the ankle it is a good dressing, it is allowable to let a bad fracture slip out; ordinarily the muscles contract, but often the injury is so great there will be no contraction; after a proper time it is important to keep the bones in place, from 10, 15 to 20 days. In necrosis it is improper to excind until exfoliation has taken place; nature will do it better than art. After the first dressing I could not have treated the case better than defendants did: I would have kept it quiet and have done but little for it: I would not have allowed it to be exposed to the air: if the external covering was off, the bone must exfoliate.

*Joel E. Hawley sworn*—Physician and Surgeon, lives in Ithaca; have been in a part of the time during trial: heard the testimony as to the defendants' treatment of this case: think it judicious; should not dress with tight bandages after first dressing—inclined plane in more general use at this time than any other: the turning off the foot and projection of the bone made but little difference for the first 2 or 3 weeks until ossific union began.* In the case in question should not have hesitated to amputate: at the time of consultation should have amputated;† the death of the bone was caused by denuding it of its periosteum, by the blow. I know of no authority that would warrant the cutting off the bone in this case, at the time; not proper in this case: have seen the limb, and it is not decidedly judicious in this case—not certain but it will be amputated yet:‡ *I did not examine* it closely.

*Arabel B. Smith sworn*—Physician and Surgeon of Truxton: have heard the trial—treatment of defendants judicious; tight dressings after the first, bad; cause destruction of soft parts: no need of keeping the bones in apposition the first 20 days with a view of uniting them: should be kept as near in place as can be so as not to injure the soft parts: the injury was sufficient in this patient to cause the death of the bone—as to cutting the bone off the time it was done, should suppose it would be an injury to it—the result does not prove it good practice at all. I should have advised the patient that there were many chances against his recovery; he might, but must run in his own risk: but the chance with amputation would be favorable: the result does not prove the course pursued better.

*Cross examined*—It is not discreet to amputate rashly: great caution in cases of doubt—should not decide rashly: in this case the limb is not better than a

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*Is this the manner in which Doct. Hawley treats fractures? Has he not learned that there is a better way? All surgical writers agree that a fracture should be reduced and the bones kept in place, and that absolute rest and perfect quietude should be strictly observed in the treatment. If "it makes but little difference" whether bones be kept in place for two or three weeks after being fractured, why have we so long labored under the mistaken idea that a surgeon should be called immediately upon the occurrence of such an accident? Why do we not wait two or three weeks until the time has arrived for ossific union to commence before we adjust a broken limb? Is not the mitigation of pain of some importance to the patient, if not to the surgeon? Consoling indeed would it be to a suffering patient should we say to him, you must lie upon your back with your limb distorted and your bones broken and protruding for "it makes but little difference" whether they be in place until some day when ossific union is to commence. The principle is to absurd to require refutation. Common sense alone would teach that a fractured bone should be kept quiet, that the process preparatory to union may not be interrupted.

†This opinion accords very well with others advanced by the witness.

‡Can the Doctor tell us for what he imagines the limb will be amputated? Any further attention bestowed upon this witness would be superfluous.

wooden one. A man who sees the bone could tell the line of demarcation: there is a time when it could be seen, in some cases in ten or 15 days. The fact that it was easier after Shipman removed the bone and dressed it, is evidence that it was time to keep the leg in place: it was no serious injury for 20 days to allow the bones to get out of place: it could not be that Shipman found the true line of exfoliation, or if he did he injured the bone above.

*Henry K. Webster sworn*—Resides in Ithaca: saw the patient in July; could not tell the day: it was after the consultation; Hyde, M. Webster, and Goodyear were there: at that time a large sore on the leg; the bones were nearly in apposition, and a little turned out: bound to the foot-board.

*Phineas Burdick sworn*—Physician and Surgeon of Preble: the defendants practice was right; from testimony I should have been in favor of amputation: the result proves that it would have been right: not material to keep the bone in apposition at all: as to the fibula not material: confining it would have tended to mortification—excinding the bone was against authority: should not have removed it until it became loose; as soon as ossification begins should put the bones in place—I have not had many cases of compound fracture: aim to keep the bones in apposition, so as not to irritate the flesh: the death of the bone was caused by the injury.

*Melvin Webster sworn*—Physician and Surgeon of Homer: saw the limb 2 or 3 days after consultation: defendants and my brother were present—saw the wound dressed: the bones were placed nearly in apposition: the limb was properly confined, and dressed properly—death of the bone caused by the injury.

[Suit withdrawn by plaintiff's counsel.]

## NOTE A.

### ON AMPUTATION IN COMPOUND FRACTURE.

The first question which naturally presents itself to the Surgeon when called to attend upon a case of bad compound fracture is, can the limb be saved without subjecting the patients life to great hazard. The correct decision of this question is of immense importance, for upon it the life or death of our patient often depends.

We beg leave to quote from Samuel Cooper's Dictionary of Practical Surgery. Those very excellent rules which are there laid down to guide us in our conduct, in cases requiring such nice discrimination and prompt decision. Mr. Cooper quotes from Pott: "In compound fracture, says Mr. Pott, the first object of consideration is whether the preservation of the fractured limb can with safety to the patients life be attempted, or in other words whether the probable chance of destruction from the nature and circumstances of the accident is not greater than it would be from the operation of Amputation. Many things may occur to make this the case: the bone or bones being broken into many different pieces and that for a considerable extent, as happens from loaded wheels or other heavy bodies of large surface passing over or falling on such limbs; the skin, muscles, tendons, &c., being so torn, lacerated and destroyed, as to render gangrene and mortification, the most probable and most immediate consequence; the extremities of a bone forming a joint being crushed or as it were comminuted, and the ligaments connecting such bones being torn and spoiled, are among other sufficient, reasons for proposing and performing immediate amputation." So also in compound fracture where the principal blood vessels and nerves are destroyed, so that we have good reason to fear that gangrene will follow amputation should be performed without hesitation. As to the periods when Amputation is to be performed we shall again quote Mr. Cooper, "From what has been said it will appear that there are three points of time or three stages of a bad compound fracture in which amputation may be necessary and right: and these three points of time are so limited that a good deal of the safety or hazard of the operation depends on the observance or non observance of them. The first is immediately after the accident before inflammation has taken possession of the parts, if this opportunity be rejected or not embraced the consequence is either a gangrene or a large suppuration and lodgement of matter." The second period is when gangrene or mortification attacks the limb which is sufficiently obvious to require but little deliberation. The third period is when the best endeavors have been made to preserve the limb, the constitution sympathizes with the local difficulty, Hectic fever supervenes, the bones refuse to unite or exfoliate, the wound discharges thin sanious matter, instead of healthy pus, the patient loses his appetite, flesh and strength, profuse sweats and an exhausting diarrhœa, reducing him to the borders of the grave, notwithstanding the most judicious treatment, in such a case, if amputation is not performed nothing can save the patients life.

The foregoing rules appear to me sufficiently plain and obvious to render any doubt on the subject of amputation in compound fracture, as out of the question. The first period at which amputation might have been made a matter of consideration, had passed over, and no appearance of gangrene or very high constitutional irritation had arisen, to discourage a perseverance in the necessary treatment to save the limb. The patient although intemperate, was of a firm con-

stitution, possessing but little irritability, and contrary to the general rule in intemperate habits, had escaped delirium tremens, thereby proving a strength and firmness of constitution to bear him through. In spite of the protruding bone and other unpromising circumstances, nature had made an effort to repair the mischief, by throwing out healthy granulations, a certain proof that the system was in good condition. What then I ask were the indications, or even the most remote necessity of amputation? Certainly not for gangrene, for that was not present. Hectic fever then was the only remaining circumstance that would call for the operation, and then not until the patient was reduced to such a condition as to menace life. What then, I repeat again, were the reasons for depriving this man of his limb? We are informed, "that the age, habits, constitution of the patient, state of the weather, and apprehensions of fever," were the reasons assigned by the defendants for resorting to such a measure. Do the principles of surgery recognize these as sufficient to justify amputation? By no means, they are only so many circumstances to be taken into account, where the state of the limb is such as to render an attempt at its preservation a matter of great hazard to the patients existence. But let us briefly examine the above reasons and mark their application to the case in question.

This man was a little more than 50, an age when bones unite almost as readily as in a man of forty. We have attended upon patients with fractured bones, whose ages were from 50 to 80, and have rarely been disappointed in seeing perfect bony union take place, and that in a reasonable space of time. Ossification in old subjects does not take place as quickly as in the young—it requires a longer course of treatment. If perfect rest and quietude be enjoined, and enforced by the surgeon, union will be almost as sure to take place as in the young.

Habit is the next in order. Ordinarily, persons addicted to the habitual and intemperate use of ardent spirits, are more obnoxious to accidents and their effects than the temperate. In these subjects, constitutional irritation quickly developes itself after an injury—high and inordinate irritation supervenes with inflammation of an unhealthy character; the nervous system sympathizes powerfully with the general disturbance of the functions—delirium tremens, with all its frightful train of symptoms, arises, frustrating our best and most assiduous attentions—the patient becomes unmanageable: insists upon leaving his bed, kicks off the dressings if they are not securely fastened, displacing the bones, seemingly unconscious of the mischief he is doing. These I repeat, as a general rule, are the train of evils which follow a bad case of compound fracture in an habitual drunkard. But sometimes he enjoys a surprising immunity from all these evils. The very fact that he had followed the practice for years without destroying him (as was the case with this patient,) and had passed through the most painful and trying period of a severe wound, without any of these alarming occurrencies was strong presumptive evidence that his habits had not broken down the stamina of an originally good constitution. The state of the weather in my opinion was not in the least unfavorable to the cure of this man, nor indeed is it usually so in the treatment of fractures in general. In crowded hospitals or densely populated cities, where a free circulation of air cannot be obtained, it may have some weight, but in the pure air of the country, a well ventilated apartment, and great attention to dressing and cleanliness, these objections are entitled to much less consideration. A man accustomed to labor in the hot sun, on a full diet, with the system saturated with ardent spirits, meets with an accident, he is laid upon a bed, his spirits withheld, his diet altered, and cooling antiphlogistic

treatment adopted, feels the heat far less than when engaged in labor—it offers no obstacle to the healthy suppuration and cicatrization of wounds, nor does it in general retard the cure of fractures.

Such was the case with this man. He did not complain of the heat of the weather, nor do I imagine the wound suffered from that cause. Are "apprehensions of fever"! among well informed surgeons, ever offered as reasons for the performance of amputation? I apprehend not. What kind of fever was so much to be dreaded we are not informed. Was it the inflammatory fever which follows an injury? No, it could not have been that, for the period had passed over when such an occurrence would be likely to take place. Was it hectic? This was not present, and we are not justified in amputating for "apprehensions" of hetic—it is only when the patient is reduced to a low state of existence by the actual presence of this malady, that we resort to the operation—And as for the numerous host of other fevers which might have been "apprehended," they were too remote contingencies to have been taken into account. A witness on the trial gives another reason why amputation ought to be performed: the defendants "thought socket of great bone was dead (meaning the lower end of the tibia probably.) and would not unite"—this however proved a mistake,for it did unite, and the patient has a good use of the ankle joint,which he would not have, had the socket of the bone been dead.

It is one of the best evidences of the improvements of modern surgery, that amputation is not so often resorted to as formerly. Many cases that in former times would have been condemned to the knife, are now considered curable. We are not to amputate because it is easier for the surgeon, than to cure a troublesome case without it. We should approach it with great caution, and never as a matter of convenience or choice. Experience has taught us that it is far more difficult, and requires more skill and care to cure one case of bad compound fracture, than to amputate many limbs. We cannot do better than quote the language of Sir Benjamin Brodie, an eminent London Surgeon, who says: "Altogether, the proportion of severe operations has of late years become very much diminished in the hospitals of our metropolis, and I attribute this mainly to the improvements that have taken place in our art. Without underrating the importance and value of operative surgery on many occasions, I must say I cannot regard it as constituting the glory and pride of our profession. The mutilation of the human body is at best but a sorry expedient. Severe operations are always attended with more or less hazard; and I conceive it is a much greater triumph for science when she teaches us to cure a disease by other means, than when she leads us to the same result by the most skillful and masterly operations. (See Gibson's Rambles in Europe, page 24.) But unfortunately for our art, cases will occur where our best efforts will be thwarted—the knife becomes the only resource: the surgeon then removes a part which he acknowledges he is no longer able to cure.

## NOTE B.

### ON EXCISION OF BONE.

"The amount of irritation would have prevented me from any effort to that effect."—*Professor Webster's testimony*, see page 22.

To write an article in defence of removing a protruding bone in compound fracture, where it offers an obstacle to reduction, may seem less called for at this

day, than an apology for the necessity of so doing in a case of this description. But as the practice has been condemned by a Professor of Anatomy in the State of New York, we trust the Profession will pardon us for offering a word upon a point of practice with which we suppose them all familiar.

We never perform an operation in surgery without being both able and willing to give our reasons for it. We shall therefore give such as we think will convince every well informed surgeon of the propriety of the measure in a case like the one in question.

In the first place it presented an obstacle to the reduction of the fracture in consequence of the retraction of the muscles and shortening of the limb, swelling and inflammation rendering the necessary extension painful and impracticable. In the second place the bone was dead, and if reduced could answer no useful purpose: on the other hand, it would act as a foreign body, irritating the living flesh with which it came in contact, and preventing the healing of the wound. In the third place, it could be removed with very little difficulty and without injury to the surrounding parts. If we waited for exfoliation to take place, many weeks or months would elapse before the limb could be properly adjusted, the wound allowed to heal and the bones to unite.

The advantages of removing the bone were, it could be easily reduced and placed in apposition, the fibula would soon unite and serve to strengthen the limb and assist in keeping it in its relative situation; the external wound would soon heal and union of the tibia take place sooner in all probability, than exfoliation of the dead portion, even under the most favorable circumstances. These expectations were fully realized in the speedy improvement which followed, the rapid healing of the wound, the mitigation of pain, and union of the bones in a reasonable space of time. Without the removal of the bone we know of no efficient course of treatment that could have been pursued. But we are told there is no authority for such a proceeding: to my mind there is most abundant. Is not a surgeons own successful experience in similar cases authority? Are not the general principles of surgery to remove foreign bodies, and the ends of protruding bones to facilitate their reduction, authority? Were not the recommendations of the consulting Surgeons authority? The answer to these interrogatories is sufficiently obvious. We do not claim the distinction of being the first to adopt the practice in cases analogous to this. Books of Surgery and Medical Journals give details of numerous successful cases, a few of which we will barely refer to.

Samuel Cooper, in his first Lines of Surgery, Vol. 1st, page 330, says, "If such plan fails, [that is the plan of rubbing the ends of the bones together and other means to make union take place,] it has been proposed to cut down to the broken part and rasp or saw off the ends of the bone and then treat the case like a recent compound fracture." The latter operation was first devised and practised with success by Mr. C. White, of Manchester, in an example in which the humerus could not be united by ordinary methods: and scraping the fracture was performed by the same gentleman, for the cure of an old fracture of the tibia with complete success. (See also Symes' Surgery, page 250, on compound fracture.) "If a bone projects through the wound and cannot be readily replaced a portion ought to be removed from its extremity by the saw or pliers sufficient for allowing this to be done." Boyer also recommends removing the ends of bone in compound fracture under certain circumstances. See Boyer's Surgery, Vol. 2d, page 26, article compound fracture. See Charles Bell's Op-

erative Surgery, Vol. 2d, page 118, article compound fracture. See Dorsey's Elements of Surgery, Vol. 2d, page 250: removal of dead bones even in Caries or Necrosis where the surgeon has good reason for believing that a separation of the dead from the living by the saw or trephine, is best and proper. The operation is justifiable and has often been performed, (see Coopers Surgical Dictionary, Vol. 1st, page 239-40.) The dead pieces of bone when very tedious, in exfoliation, when wedged in the substance of the surrounding bone and when so situated as to admit of being safely sawed or cut away, may sometimes be advantageously removed in this manner. (Also page 359, also Vol. 2d, page 201, 202.)

In the American Journal of the Medical Sciences, (Edited by Isaac Hays M. D.) No. 40, for August, 1839, is the report of a case of the successful removal of the ends of the bones of the leg, for a badly set fracture, by Charles Parry, M. D. of Indianapolis, Indiana. M. Clement Surgeon in chief to the Marine Hospital at Rochefort, has two cases of Resection of portions of the femur. In Guy's Hospital Reports, for April, 1839, is an account of an operation by Charles Aston Key, (See American Journal of the Medical Sciences, No. 40, page 339, 340.) Sir Astley Cooper recommended the operation in this case, of sawing off the bones of the leg to cure a deformity caused by a gunshot fracture. In Vol. 17th, page 39, of the American Journal of the Medical Sciences, is reported a case of sawing off the ends of the tibia and fibula at the Pennsylvania Hospital by T. S. Kirkbride, resident Physician. The operation was performed by Thomas Harris, Surgeon of the Hospital, a perfect cure was the result: at page 40 of the same Journal, is the excision of the ends of the bones of the fore-arm, by the same Surgeon. At page 44, is reported a case of Excision of the ends of the bones of the leg, by J. Rhea Barton one of the Surgeons of the Pennsylvania Hospital and with perfect success. (See page 240, of the same Vol.) a case of Excision of the end of the humerus for an ununited fracture, recorded by Mr. Syme, in the Edinburgh Medical and Surgical Journal, folllowed by success. Velpeau has collected 60 cases of Excision of the elbow joint, of these 40 terminated favorably: hence he concludes the operation justifiable and proper. (See Boston Medical and Surgical Journal, Vol. 24, page 159.) Mr. Syme's Surgery, page 225, on sawing off the end of the bone which protrudes after amputation. In James Mann's Medical Sketches, page 208 a case is related in which the removal of a portion of the humerus by the saw, on a Seaman who was wounded at the Battle of Plattsburgh, in 1814. At page 119, of the same work is a case of sawing off the end of a bone that protruded after amputation by J. B. Whitbridge, of the United States Army. At page 224, of the above work we observe the following: "Subsequent to the Battle of Little York, the wounded were exposed in tents on the Niagara, in the month of May, wanting warmer accommodations. The integuments preserved to cover the stumps did not unite for want of adhesive inflammation, large vitiated suppurations a retraction of the muscles around the bone which left it projecting beyond the surface of the wound from one to two inches. These projecting ends of bone were amputated." (See American Medical Recorder, Vol. 9th, page 278: also Vol. 13th of the same, page 98,) on the removal of carious' bones by Wm. A. McDowall of Fincastle Virginia. In the Dublin Hospital reports, are several interesting cases of the successful excision of joints by Sir Philip Crampton, (See Medical Recorder, Vol. 13, page 131.) In the New York Medical and Physical Journal, for 1827, Doct. John Kearney Rodg-

ers, Surgeon of the New York Hospital, relates a case of ununited fracture of the humerus successfully treated, on Mr. White's plan of sawing off the ends of the bone after the seton had been faithfully tried for six months without benefit, a perfect cure was the result.

M. Roux, Surgeon of the Hotel Dieu, has performed excision of the elbow joint eleven times since 1812, eight of which terminated favorably.—*See Provincial Med. and Surg. Journal, from Bulletin de l' Acadamie, March* 31, 1841.

Excision of the elbow joint was performed by Dr. Gordon Buck, of New York.—*See New York Medical and Surgical Journal for April*, 1841.

The first operation of excision of the elbow joint in this country, was performed by Dr. Thomas Harris, Surgeon of the Marine Hospital, Philadelphia, in June, 1837. Dr. John C. Warren, Surgeon of the Massachusetts General Hospital, Boston, has also performed the same operation.

In the American Journal of the Medical Sciences for October 1841, page 491, is a reference to the report of a case of excision of a portion of the tibia for a badly united fracture, performed by M. Portal, of Palermo, (Sicily,) in 1837.—In December 1840, excision of a portion of the femur was performed for a badly united compound fracture of the thigh, in the same Hospital, and with perfect success.

From this it will appear that sawing off the ends of the bone in a great variety of instances, is not only practicable and proper, but is often the most efficient means of curing cases that must otherwise be condemned to amputation. We apprehend that these are only a few of the many cases in which it has been practiced. Our researches have been by no means extensive, and we have good reason to believe that many practitioners of experience have performed the same operation whose cases have never been reported. I have done it more than once, and with the most satisfactory results. I have also performed excision of the bones of the metatarsus for extensive caries, and preserved to the patient a useful foot that must have been amputated without. But there were witnesses who testified that there was no authority for such a proceeding; that the doctrine of cutting off bone would not apply to this particular case. Why not? was this so very unique in its character as to form an exception to all general rules? Are there among the many thousand cases of compound fracture which occur, any two precisely alike? There is a general similarity in the features of all, and their treatment must be conducted on the same general principles.

All agree that if any thing offers an obstacle to the reduction of a fracture, it is to be removed; if it is projecting bone, remove it with the saw or cutting forceps. Foreign bodies are to be removed, and a dead bone acts as one, and offering an obstacle to reduction, the rule is as applicalbe 20 days after fracture as 20 minutes. Some of the medical gentlemen testified they never saw a case like this; that they never knew a case left like this. A very good reason why!—The annals of Surgery furnish no such examples. There probably never was a case in every respect like this, and we venture to predict there will not be again, particularly in this County. But for the sake of argument suppose there had been no authority in books for such a proceeding, if a blind and pertinacious adherence to written authority is persisted in, how would any advances or improvements in Medicine or Surgery be brought about? Successful experience is the best of authority. What if we should find an individual impaled upon the end of a crow bar! is there any authority in books for its removal? We know of none—and yet such an occurrence has literally happened to our certain

knowledge, and the propriety of its removal we never heard questioned. What! Allow a bone to remain protruding through the flesh until its vitality is destroyed, waiting weeks and months for the tedious process of exfoliaiion to remove what a little art could effect in a few minutes. Is this right? is it rational? is it surgical? The veriest tyro in the profession should know better.

It is the business of the surgeon to second and assist nature in her efforts to repair an injury—it is for him to reduce a fracture, and devise means to keep it in place while nature, if undisturbed in her work, performs the cure. But Professor Webster says: "Taking every thing into consideration, I should have decided upon amputation." What, afraid to remove once inch of dead bone for fear of causing irritation, and not afraid to remove the whole limb? If the limb was amputated, the bone of course must come off in the operation. Again he says: "I should have adjusted the bones and reduced irritation, and waited the period when nature was incompetent to do her duty, then I might be disposed to remove the bone." He had decided upon amputation, why then would he have adjusted the bones? It is to be presumed that the time had arrived in the Professor's own estimation that nature was incompetent to do her duty—consequently he decides upon sacrificing the whole limb in preference to one inch of dead bone. This appears very like "straining at a gnat and swallowing a camel." If "cutting off a portion of bone causes irritation, and a portion will remain till death," why does it not do the same thing in amputation where the bone is cut off with the saw? we rarely see exfoliation follow in such cases, which we should if the Professor's doctrine was sound—also after trepaning, exfoliation is of rare occurrence. We apprehend the gentleman has not had very extensive experience in the treatment of compouud fractures, or he would not hazard so wild a prophecy, that "a portion must remain till death." Sinuses and exfoliations are common after a bad case of compound fracture, continuing to discharge for a year, two years, or more, and ultimately becoming sound; the patient possessing a good use of his limb in the mean time. To the surgeon of experience and observation, there is nothing so very singular in all this. Upon the whole, we think Professor Webster's testimony the most extraordinary we ever heard delivered in a court of justice.

## NOTE.—ON THE LOSS OF PERIOSTEUM.

"If the external covering be off, the bone must exfoliate."—*Professor Hamilton's testimony, page* 24.

The loss of the periosteum is not necessarily followed with exfoliation, or indeed is it usually so. Whoever has been long in the practice of surgery, must have met with a great many cases where bones have been denuded of their coverings, including the periosteum, and sometimes to a great extent. This is particularly the case with the cranium, and is of very great frequency; and protruded bones in compound fractures are often denuded of this membrane; yet if the bone is not long exposed, but is soon covered with the flesh and kept so, exfoliation rarely takes place. This is a fact that every surgeon of much experience must have frequently observed; while a long exposure to the air must inevitably destroy its vitality. The periosteum offers but slight protection to the bone when exposed to the drying and withering influence of the atmospheric air—its vessels dry up and contract, the vessels of the bone dry, and its death is the consequence.

Samuel Cooper's Dictionary of Practical Surgery, vol. 1, page 259, has the following remarks: "It was anciently believed that whenever a bone was denuded, the exposed surface must necessarily exfoliate, and this being taken for granted, the old surgeons used to put immediately in practice whatever they thought best calculated to bring on an exfoliation as quickly as possible." And again, "exfoliation is not a necessary consequence of a bone being laid bare and deprived of its periosteum. If the bone be in other respects uninjured, healthy, and enjoy a vigorous circulation of blood through its textures, granulations will be generated on its surface, they will cover and firmly adhere to it without the smallest exfoliation being thrown off, especially in young subjects. But if caustic, stimulating, or drying applications be made use of, or the bones left for a considerable time exposed, the circulation in the superficial portion of it will be necessarily distturbed and destroyed," &c.&c. "The best mode of attempting to prevent an exfoliation from occurring in a bone that has been exposed by a wound, is to cover the part again as soon as possible with the flesh that has been detached from it. "Mr. Syme says, (see Symes' Surgery, page 277:) "It was formerly believed that the mere removal of the periosteum certainly caused the death of the bone. But it is now ascertained that simply removing the periosteum does not necessarily or even generally cause exfoliation." From this it appears the Professor is somewhat antiquated in his pathological views on this subject—rather behind the times. The loss of the periosteum in this case at the time of the accident, did not exceed one-fourth of an inch, and that from the extreme end of the fracture; and the bone suffered no violence from the injury except directly upon the fractured surface which came in contact with the boot-leg and ground.

## NOTE.—ON SAWING OFF BONE.

"As to cutting off the bone, there was but one circumstance under which it was proper: that is when we suppose or presume that the living parts are dying by lying in contact with the dead. The rule is the same as in amputation, if the death was extending to parts uninjured, then amputate."—*Pofessor Hamilton's testimony, see page* 23.

Does the Professor mean to be understood that we are to apply the doctrine of Baron Larrey, on amputation, in traumatic gangrene, to dead protruded bones, and amputate while the mortification is extending? of course then he would amputate a bone as soon as it began to die, or while its death was extending, for it must somewhere be in contact with living bone or flesh. But the Doctor will not deny the correctness of the rule in amputation, that where mortification has taken place and has ceased to spread, then amputation is under all circumstances right and proper. Now this protruded bone was dead, and according to his doctrine it ought to have been removed, as the rule in amputation is to remove when mortification has taken place. Again he says, "*In Necrosis, improper to excind; nature will do it better than art.*" (See Hamilton's testimony, page 24.) The doctrine of true Necrosis does not apply to this case at all. There is a very good reason why the surgeon as a general rule is not to attempt the removal of bone in Necrosis until exfoliation has taken place. In true Necrosis the dead bone is out of sight, covered by the living flesh, and to get to the bone requires a severe and painful operation, and after it is exposed, the surgeon cannot always be certain that he is beyond the limits of the dead bone. But the Professor's doctrine is too broad even for Necrosis, for there are cases where na-

ture is not competent for the removal of dead bone, and we are distinctly recommended to use art in such cases. The saw, the chisel, the gouge, the trephine, and the actual cautery, are means which have been extensively employed in Necrosis, and in the hands of a surgeon may do much in assisting nature in her efforts.

## CONCLUSION.

In reviewing the preceding testimony, especially that of the medical gentlemen, we find many very striking features. There are some portions involving doctrines which it is a matter of no small importance to the profession, and to the world, whether they be true or false; and feeling some regard for our science, and for the promulgation of correct principles, I cannot suffer them to pass unnoticed. It will be perceived that there is a wide difference of opinion upon some essential points; there are opinions advanced which if true should be sustained and which if absurd cannot too soon be exposed. There are likewise some discrepancies, which I have yet to learn what kind of logic is capable of reconciling. But let us revert to some passages. One witness testifies that he "has heard the practice of defendants described by Benton and Maybury, and knows of nothing improper in it," (see their testimony,) and then proceeds to say, "it is not good practice to allow a bone to slip out of place," that "a displaced bone should be reduced and kept so."

Professor Webster testifies that he "knows of nothing objectionable in the treatment of this case," yet says, "it indicates want of skill to allow of displacement." (See Benton and Maybury's testimony.)

Professor Hamilton says, "after first dressing he could not have treated better than defendants did—he would have done but little—have kept it *quiet*, and not have allowed it to be exposed to the air." Does the witness recollect the testimony upon these points? (See Brockway, Rose, Shipman, Riggs, Patterson, Carpenter, Benton, Maybury and Bradford's testimony.) Professor Webster says, "no importance that the foot fall over, because the bones could not unite," and Professor Hamilton says, "as to moving the foot if I understand the testimony, it did not matter a straw." Are these the doctrines taught in the Medical College of western New York, or are they only applicable to this specific case? Are they the doctrines of a Bell, a Cooper, a Dorsey, a Dupuytren, a Physic, a Gibson, a Mott or a Warren? Unfortunately they clash with the doctrines of all these veterans of surgery! Again Professor Webster says, "cutting off a portion of bone causes irritation, and a portion will remain till death," and Professor Hamilton says, "the patient stands an equal chance to lose his limb."—These gentlemen perhaps may be curious to know how their prognosis' have been verified. They will see by a reference to the letter of Doct. Carpenter, that the leg is now free from ulceration or discharges of any kind, and is nearly as serviceable as the other. It is a fact which needs no demonstration that long experience and close observation are far more efficient than theory, in preparing a surgeon to form correct conclusions. Professor Webster having been 18 years in practice, testifies that he has had some 6 or 8 cases of compound fracture.—Joel E. Hawley says, "I have seen the limb—not sure but it will be amputated yet." No more are we sure but Dr. Hawley's leg will be amputated yet; the chances are probably about equal. (See letters of Drs. Patterson and Carpenter.)

But let us strip the subject of all the mysticism and sophistry that has been thrown around it, examine the opinions which have been given, and exhibit the

naked facts testing the correctness of these opinions. Let us revert to the time of consultation. What was the condition of the patient at that time? The defendants had doomed his limb to the knife, and decided that it must be amputated *immediately* or he would *die—that a fever would set in, and then it would be too late—that the socket of the bone in the ankle was dead*, and therefore would not unite,—and one witness says, they feared *gangrene would take place.*— Were any of these apprehensions ever realized? Has even a solitary opinion proved correct? Time has shown; and the result of the case has conclusively proved their fallacy; furnishing a mournful illustration of the uncertainty of human prophesy, and the impotency of human foresight and sagacity. On the other hand, will the opinions given by my colleagues and myself on that occasion bear examination? The principles which guided us have already been fully discussed, and the sequel attests their correctness. Our most sanguine expectations have been fully realized in the cure which followed our treatment.

There is no act in my professional career, to which I can revert with more pleasure and self approbation, than the strong grounds taken for the preservation of this man's limb. It was an act to which I was prompted by every principle of humanity. I should consider myself not only unworthy of my profession, but unjust to my claims to the name of man, could I look calmly on and witness a fellow being unnecessarily subjected to so serious an operation. The patients condition appealed strongly to our sympathies. A wretched object of misfortune, stretched upon a bed of suffering, dependant upon public charity without a relative near, he very naturally viewed his physician as his best friend and looked to him for relief. Being informed that his leg must be amputated, it is not surprising that he should remonstrate against a measure so revolting to the natural feelings—he appealed to the superintendants of the house, and they in their benevolence allowed him the benefit of a consultation, and that consultation was the means of saving his limb, if not his life.

We have reason to fear that the Ethics of operative surgery are not as well understood or as strictly observed as they should be in these days of enlightened surgery. The humane surgeon never approaches his patient with the knife without the most solemn conviction that it is his last and only resort. He should always proceed with the same feeling that he would, were his nearest and dearest friend the subject: an ambition to operate, a consideration of interest or convenience, or a desire to shrink from responsibility, or to avoid the trouble of a protracted cure, should never be allowed to influence his decision.

Whoever enters upon the duties of the Medical Profession with the anticipation of finding them unattended with care and perplexity, will learn by sad experience that he has misjudged his calling; and to such an one I would say: abandon the profession at the threshold, before you have tasted the bitter fruits of disappointment. Unavoidable scenes of misery, suffering and anguish every where beset the path of the Surgeon, and he should meet them with persevering energy and manly fortitude. Our art professes to be founded upon principles of the purest benevolence and humanity, dispensing its healing and comforting blessings, alike to the wealthy citizen and houseless beggar. The poverty stricken, the wretched and the friendless, have peculiar claims upon our skill and charity. We are under the strongest moral obligation to sacrifice personal ease and comfort to the relief of the suffering whatever their rank or condition—to cultivate the spirit of the "good Samaritan," binding up the wounds of the poor and needy.